Extron® Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

User's Manual

Infrared Remote Control

IR 102 Kit

68-663-01 **Rev. C**
03 06

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Precautions

Safety Instructions • English

This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

Caution

Read Instructions • Read and understand all safety and operating instructions before using the equipment.

Retain Instructions • The safety instructions should be kept for future reference.

Follow Warnings • Follow all warnings and instructions marked on the equipment or in the user information.

Avoid Attachments • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

Consignes de Sécurité • Français

Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).

Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

Attention

Lire les instructions• Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

Conserver les instructions• Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.

Respecter les avertissements • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

Eviter les pièces de fixation • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

Sicherheitsanleitungen • Deutsch

Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.

Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

Achtung

Lesen der Anleitungen • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits-und Bedienungsanleitungen genau durchlesen und verstehen.

Aufbewahren der Anleitungen • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

Befolgen der Warnhinweise • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerdokumentation.

Keine Zusatzgeräte • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

Instrucciones de seguridad • Español

Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (o cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.

Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

Precaucion

Leer las instrucciones • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

Conservar las instrucciones • Conservar las instrucciones de seguridad para futura consulta.

Obedecer las advertencias • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

Evitar el uso de accesorios • No usar herramientas o accesorios que no sean especificamente recomendados por el fabricante, ya que podrian implicar riesgos.

Warning

Power sources • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

Power disconnection • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

Power cord protection • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

Servicing • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

Slots and openings • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

Lithium battery • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Avertissement

Alimentations• Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de la contourner ni de la désactiver.

Déconnexion de l'alimentation• Pour mettre le matériel hors tension sans danger, déconnectez tous les cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (s'il est amovible) ou encore de la prise secteur.

Protection du cordon d'alimentation • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pincés par des objets.

Réparation-maintenance • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à de hautes tensions et autres dangers.

Fentes et orifices • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.

Lithium Batterie • Il a danger d'explosion s'll y a remplacment incorrect de la batterie. Remplacer uniquement avec une batterie du meme type ou d'un ype equivalent recommande par le constructeur. Mettre au reut les batteries usagees conformement aux instructions du fabricant.

Vorsicht

Stromquellen • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdanschluß, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.

Stromunterbrechung • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stomversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.

Schutz des Netzkabels • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegengestellt werden können.

Wartung • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.

Schlitze und Öffnungen • Wenn das Gerät Schlitze oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Öbjekten blockiert werden.

Litium-Batterie • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

Advertencia

Alimentación eléctrica • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearia ni eliminaria.

Desconexión de alimentación eléctrica • Para desconectar con seguridad la acometida de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.

Protección del cables de alimentación • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.

Reparaciones/mantenimiento • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

Ranuras y aberturas • Si el equipo posee ranuras o orificios en su caja/alojamiento, es para evitar el sobrecalientamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.

Batería de litio • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Desachar las baterías usadas siguiendo las instrucciones del fabricante.

FCC Class A Notice

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Note: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance.

Extron's Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

USA, Canada, South America, and Central America:
Extron Electronics
1001 East Ball Road
Anaheim, CA 92805, USA

Europe, Africa, and the Middle East:
Extron Electronics, Europe
Beeldschermweg 6C
3821 AH Amersfoort
The Netherlands

Asia:
Extron Electronics, Asia
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363

Japan:
Extron Electronics, Japan
Kyodo Building
16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product.

If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at (714) 491-1500 (USA), 31.33.453.4040 (Europe), 65.6383.4400 (Asia), or 81.3.3511.7655 (Japan) to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

安全须知 • 中文

这个符号提示用户该设备用户手册中有重要的操作和维护说明。

这个符号警告用户该设备机壳内有暴露的危险电压，有触电危险。

注意

阅读说明书 • 用户使用该设备前必须阅读并理解所有安全和使用说明。

保存说明书 • 用户应保存安全说明书以备将来使用。

遵守警告 • 用户应遵守产品和用户指南上的所有安全和操作说明。

避免追加 • 不要使用该产品厂商没有推荐的工具或追加设备，以避免危险。

警告

电源 • 该设备只能使用产品上标明的电源。 设备必须使用有地线的供电系统供电。 第三条线（地线）是安全设施，不能不用或跳过。

拔掉电源 • 为安全地从设备拔掉电源，请拔掉所有设备后或桌面电源的电源线，或任何接到市电系统的电源线。

电源线保护 • 妥善布线，避免被踩踏，或重物挤压。

维护 • 所有维修必须由认证的维修人员进行。 设备内部没有用户可以更换的零件。为避免出现触电危险不要自己试图打开设备盖子维修该设备。

通风孔 • 有些设备机壳上有通风槽或孔，它们是用来防止机内敏感元件过热。 不要用任何东西挡住通风孔。

锂电池 • 不正确的更换电池会有爆炸的危险。 必须使用与厂家推荐的相同或相近型号的电池。 按照生产厂的建议处理废弃电池。

Table of Contents

Chapter One • Installation and Operation 1-1

- About the IR 102 Kit 1-2
- Mounting the IR 102 Rx Remote Receiver 1-2
  - Rack mounting 1-2
  - Furniture mounting 1-4
  - Projector mounting 1-4
- Connecting the Receiver to a Switcher 1-7
- Features and Connections 1-8
- Installing Batteries in the Remote 1-11
- Operation 1-11
  - Working together with a control system 1-11

Appendix A • Specifications, Part Numbers, Accessories A-1

- Specifications A-2
- Included Parts A-3
- Accessories A-3

All trademarks mentioned in this manual are the properties of their respective owners.

68-663-01 **C**
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Chapter One

Installation and Operation

About the IR 102 Kit

Mounting the IR 102 Rx Remote Receiver

Connecting the Receiver to a Switcher

Features and Connections

Installing Batteries in the Remote

Operation

About the IR 102 Kit

The Extron IR 102 Kit is an infrared (IR) remote control kit that can control a variety of Extron switchers and other devices via RS-232 or contact closure. This kit contains the following items:

- (1) IR 102 handheld remote control
- (1) IR 102 Rx Remote Receiver
- (1) IR Sensor

Mounting the IR 102 Rx Remote Receiver

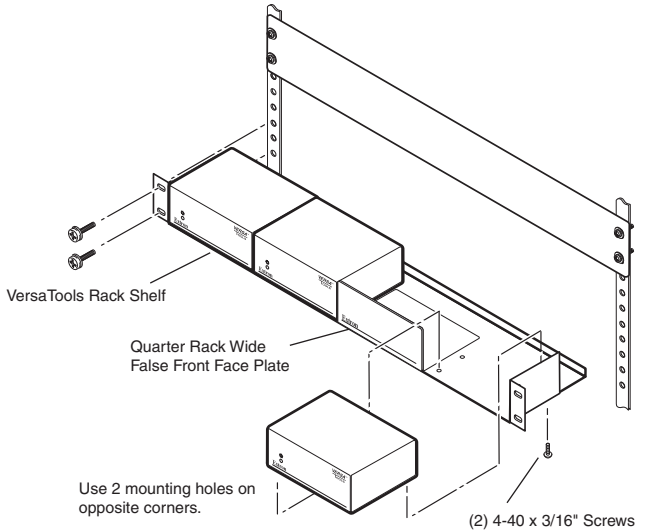
The IR 102 Rx Remote Receiver can be mounted on a rack shelf, under a desk or tabletop, or on a projector bracket. There are many optional accessories for mounting the IR 102 Rx, including the following items:

- 1U, 3.5" deep, VersaTools® rack shelf kit (part #60-190-20)
- 1U, 3.5" deep, basic VersaTools rack shelf (part #60-604-20)
- 1U, 6" deep, universal rack shelf kit (part #60-190-10)
- 1U, 6" deep, basic rack shelf (part #60-604-10)
- 1U, 9.5" deep, universal rack shelf kit (part #60-190-01)
- 1U, 9.5" deep, basic rack shelf (part #60-604-01)
- MBU 123 mini under-desk mounting bracket kit (part #70-212-01)
- VersaTools projector mounting kits (PMK 100, #70-367-01; PMK 300, #70-374-01; PMK 350, #70-563-02, -03)

Rack mounting

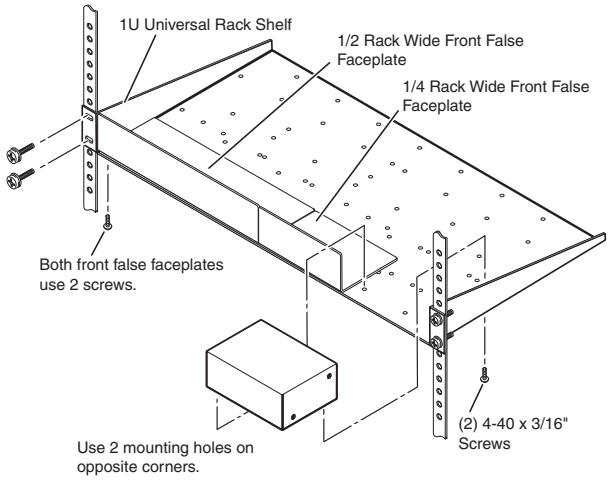
For optional rack mounting, mount the IR 102 Rx Remote Receiver on one of the rack shelves listed above. On the standard 9.5" deep rack shelf, the Remote Receiver mounts in one of four locations to the rear of the rack or in one of four locations to the front of the rack.

1. If rubber feet were previously installed on the bottom of the Remote Receiver, remove them.
2. Mount the Remote Receiver on the rack shelf, using two 4-40 x 3/16" screws in opposite (diagonal) corners to secure the Remote Receiver to the shelf.
3. Install blank panel(s) or other unit(s) to the rack shelf.
4. Insert the shelf into the rack, aligning the holes in the shelf with those of the rack.
5. Secure the shelf to the rack using the supplied machine screws. This shelf can be mounted in the front or in the rear of the rack.



Mounting the IR 102 Rx Remote Receiver on a VersaTools rack shelf

NOTE *Only products in the VersaTools line can be mounted to a VersaTools shelf. Any 1U rack-mountable Extron product can be mounted on the standard shelf.*

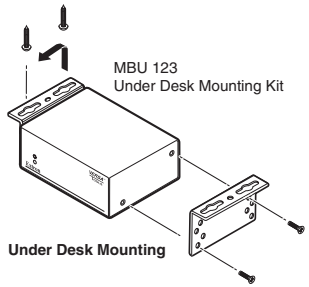


Mounting the IR 102 Rx Remote Receiver on a standard rack shelf

Furniture mounting

Furniture mount the IR 102 Rx Remote Receiver using optional mounting kit #70-212-01 as follows:

1. Attach the mounting brackets to the Remote Receiver with the provided machine screws.
2. If rubber feet were previously installed on the bottom of the Remote Receiver, remove them.
3. Hold the Remote Receiver with the attached brackets against the underside of the table or other furniture. Mark the location of the screw holes of the bracket on the mounting surface.
4. Drill 3/32" (2 mm) diameter pilot holes, 1/4" (6.3 mm) deep in the mounting surface at the marked screw locations.
5. Insert #8 wood screws into the four pilot holes. Tighten each screw into the mounting surface until just less than 1/4" of the screw head protrudes.
6. Align the mounting screws with the slots in the brackets and place the Remote Receiver against the surface, with the screws through the bracket slots.
7. Slide the receiver slightly forward or back, then tighten all four screws to secure the Remote Receiver in place.

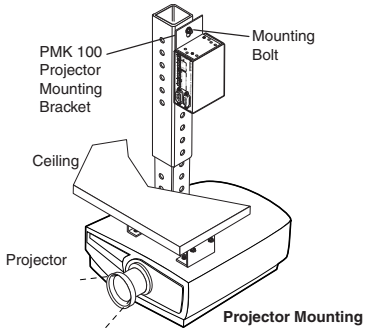


Projector mounting

Projector mounting procedures differ depending on the mounting kit you use.

Projector mount the IR 102 Rx using optional mounting kit #70-217-01 as follows:

1. Attach the mounting brackets to the Remote Receiver with the provided machine screws.
2. If rubber feet were previously installed on the bottom of the receiver, remove them.
3. Secure the Remote Receiver to a projector mount or other surface by inserting the mounting bolt through the bracket's slotted hole and tightening the bolt.



Projector mounting the IR 102 Rx with kit #70-217-01

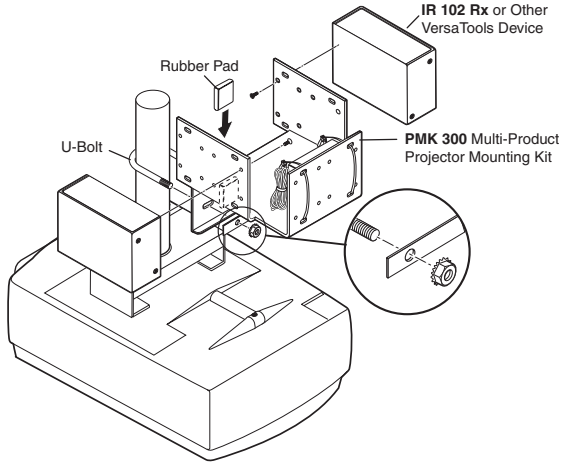
Alternatively the IR 102 Rx Remote Receiver can be projector mounted using the optional VersaTools multi-product projector mounting kit, part #70-374-01.

NOTE *Only VersaTools products and most IP Link products can be mounted using the multi-product projector mounting kit.*

To mount the IR 102 Rx using kit #70-374-01, do the following:

1. If necessary, remove feet from the bottom of the receiver.
2. Mount the IR 102 Rx to one of the bracket's three mounting plates. The device can be vertically mounted facing either up or down, whichever is most convenient. See the following illustration.

   Use two supplied 4-40 x 3/16 screws in opposite (diagonal) corners to secure the device to the bracket.



Projector mounting the IR 102 Rx with kit #70-374-01

NOTE *On the side mounting plates, devices are typically mounted on the outside of the bracket. On the front mounting plate, devices are typically mounted on the inside of the bracket.*

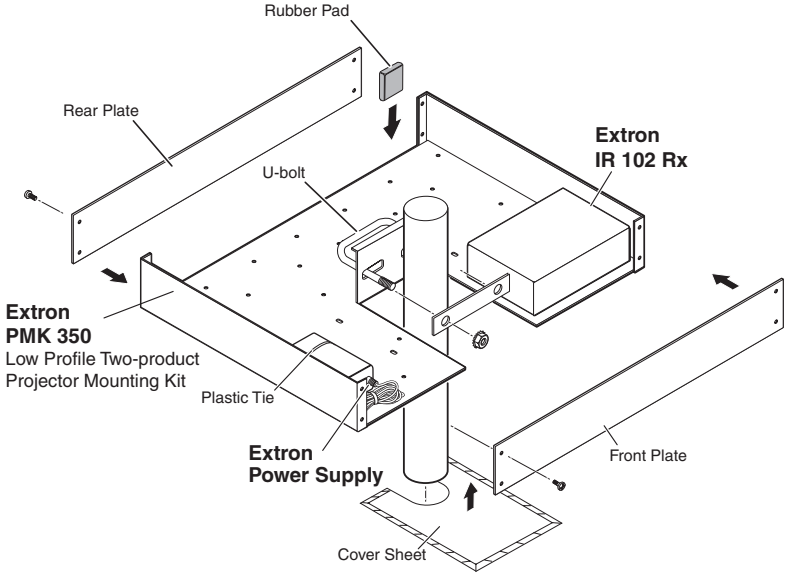
NOTE *The front mounting plate is 1/4" taller than the side plates. This size helps ensure the accessibility of buttons or connectors.*

3. Affix the black rubber pad to the mounting plate.
4. Place the U-bolt around the ceiling pole and insert the two legs of the U-bolt through the slotted holes on the bracket's mounting plate and then through the slotted holes on the backing brace.

   For a typical (1.5" to 2.0" diameter) pole — The supplied U-bolt fits a typical ceiling pole.

   For a smaller or larger pole — Locally obtain a U-bolt that fits the ceiling pole. The slotted holes on the bracket will accommodate a U-bolt for pole sizes from 1.0" to 2.5" in diameter.
5. Secure the bracket to the U-bolt with the included hex nuts, washers, and lock washers.

The IR 102 Rx can also be mounted using other kits, as shown below.

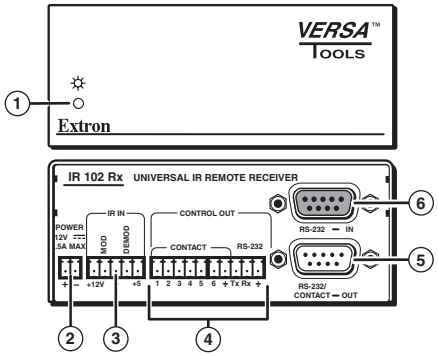


Projector mounting the IR 102 Rx with the PMK 350 kit, part #70-563-02 or #70-563-03

Connecting the IR 102 Rx to a Switcher

1. Power down the switcher.
2. Connect the IR 102 Rx to the switcher via the RS-232 or contact closure ports, available on both 9-pin and captive screw connectors.
3. Position the IR sensor at the best location for the IR 102 handheld remote control.
4. Connect the IR Sensor to the IR In connector on the Remote Receiver.
5. Connect the external power supply to the Remote Receiver, then plug one end of a standard IEC power cord into the power supply and the other end into a 100-240 VAC, 50/60 Hz power source.
6. Power up the switcher.

Features and Connections



IR 102 Rx Remote Receiver front and rear panels

① **Power LED** — When lit, this LED indicates power is applied. The LED blinks during communication activity.

② **Power connector** — Plug the external 12 V power supply into this 2-pole captive screw connector. The power supply is included with the unit. The figure below shows how to wire the connector.

CAUTION *When connecting the power supply, voltage polarity is extremely important. Applying power with incorrect voltage polarity could damage the power supply and the Remote Receiver. Identify the power cord negative lead by the ridges on the side of the cord.*

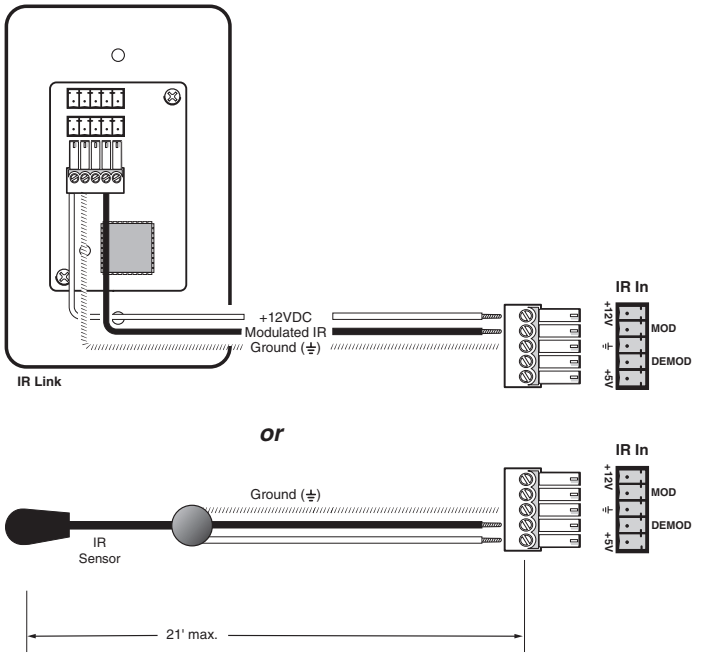
Power connector wiring

NOTE *Do not tin the stripped power supply leads before installing the captive screw connector. Tinned wires are not as secure in the captive screw connectors and could pull out.*

WARNING *The two power cord wires must be kept separate while the power supply is plugged in. Remove power before continuing.*

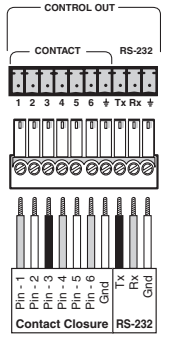
To verify the polarity before connection, plug in the power supply with no load and check the output with a voltmeter.

③ **IR In connector** — Plug the cable from the IR sensor or from an Extron IR Link infrared repeater into this 3.5 mm, 5-pole captive screw connector.



NOTE *The maximum cable length for the IR sensor is 21 feet (6.4 meters). Cut or extend the IR sensor's cable as needed.*

④ **Contact / RS-232 (Control Out) connector (captive screw)** — Plug the contact closure/RS-232 output cable into this 3.5 mm, 10-pole captive screw connector, and plug the other end of the cable into the switcher's contact closure/RS-232 control port. This permits the IR 102 Rx Remote Receiver to control the switcher.



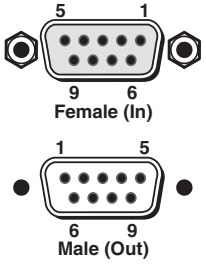
NOTE *The IR 102 Kit can be used with an Extron MPS 112 switcher only when the switcher is in single switch mode. Refer to the MPS 112 User's Manual.*

⑤ **RS-232/Contact – Out connector** (9-pin D) — Plug the RS-232 or contact closure output cable into this 9-pin D connector, and plug the other end of the cable into the switcher's contact

closure/RS-232 control port. This permits the IR 102 Rx Remote Receiver to control the switcher. The pin assignments are listed in the following table.

NOTE *See the note for* (4).

NOTE *Connect RS-232 or contact closure, but not both. Remove the pins that are not needed.*



Pin	RS-232 In	RS-232 Out	Contact Closure
1	—	—	Input #1
2	TX	RX	—
3	RX	TX	—
4	—	—	Input #2
5	Gnd	Gnd	Gnd
6	—	—	Input #3
7	—	—	Input #4
8	—	—	Input #5
9	—	—	Input #6

NOTE *The cable used to connect the RS-232/Contact – Out connector to a computer, control system, or contact closure device may need to be modified by removing pins or cutting wires. If unneeded pins are connected, the system may "hang" (suspend communication indefinitely).*

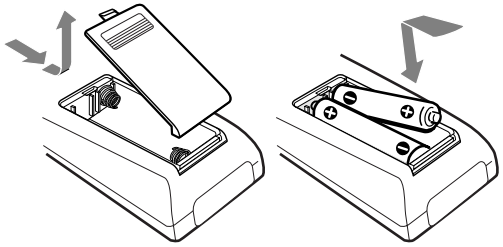
For RS-232 control and IR control, use a control cable with only pins 2, 3, and 5 connected. If other pins are connected, either cut the wires to the other pins if the cable has a hard-shelled connector, or remove the other pins if the cable has a molded plug.

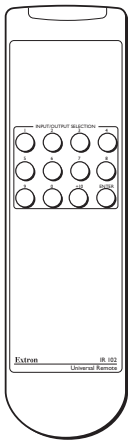
For contact closure, use a control cable with pins 2 and 3 not connected. If the cable has pins 2 and 3 connected, cut the wires to these pins if the cable has a hard-shelled connector, or remove these pins if the cable has a molded plug.

(6) **RS-232 In connector** — Plug the RS-232 input cable into this 9-pin D connector to permit a PC or control system to control the switcher, even though the switcher's RS-232 connector is occupied by the IR 102 Rx Remote Receiver. The pin assignments are shown in the table above.

Installing Batteries in the Remote

The IR 102 Handheld Remote Control is shown at right. Install two AAA batteries in the remote as shown below. The battery compartment is in the front, bottom side of the remote control.

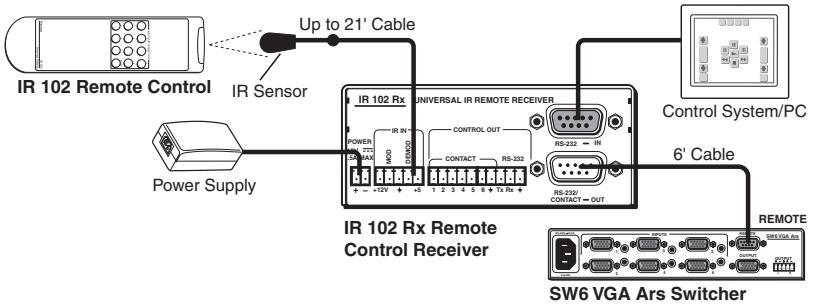




Operation

To select an input using the IR 102 remote control, aim the handheld unit at the IR detector and press the numeric button for the desired input. For switchers with ten or more inputs, press the **+10** key to add ten to the input number selected. For example, to select input 17, press the **+10** key, then the **7** key. The maximum operating range is 30 feet.

Working together with a control system



A typical IR 102 Kit application

The IR 102 Remote Receiver connects via cable to the switcher's rear panel RS-232 connector, and it uses the switcher's RS-232 interface for input selection. The Remote Receiver also has an RS-232 input connector, to permit the switcher to be controlled by a PC or control system, even when the switcher's RS-232 port is occupied by the IR 102 Remote Receiver.

NOTE *The remote control can operate a switcher only if the switcher is configured as master, with no switchers slaved to it. Refer to the switcher's manual for information on switcher configuration.*

Appendix A

Specifications, Part Numbers, and Accessories

Specifications

Included Parts

Accessories

Specifications, Part Numbers, and Accessories

Specifications

General

Carrier frequency	38 kHz
Max. IR range (between IR handheld remote control and IR sensor)	30 feet (9.1 meters)
Max. IR sensor cable length	21 feet (6.4 meters)
External power supply (included)	100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, 1 A, regulated
Power input requirements	12 VDC, approximately 30 mA
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Rack mount	Yes, with an optional 1U rack shelf, part #60-190-01 or 60-604-01; or a VersaTools rack shelf, part #60-190-20 or 60-604-20; also under-furniture-mountable with optional brackets #70-212-01 or projector-mountable with optional brackets #70-217-01/70-077-04
Enclosure type	Metal
Enclosure dimensions	1.7" H x 4.4" W x 3.3" D (1U high, quarter rack wide) 4.2 cm H x 11.1 cm W x 8.4 cm D
Product weight	0.4 lbs (0.2 kg)
Shipping weight	2 lbs (1 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Listings	UL, CUL
Compliances	CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF	30,000 hours
Warranty	3 years parts and labor

NOTE *Specifications are subject to change without notice.*

Included Parts

These items are included in each order for an IR 102 Remote Kit (part #70-224-01):

Included parts	Replacement part number
IR 102 Rx Remote Receiver	
IR 102 Handheld Remote Control	70-224-10
12 VDC, 1 A external power supply kit	70-055-01
IR sensor on a 21-foot cable	
RS-232 Series male-to-female cable (6'/1.8 m)	26-433-03
IEC power cord	
Tweeker (small screwdriver)	
Hook-and-loop fasteners	
3.5 mm, 2-pole captive screw connector	10-319-15
3.5 mm, 5-pole captive screw connector	10-319-10
3.5 mm, 10-pole captive screw connector	10-319-11
User's manual	

Accessories

Accessories	Part number
1U, 3.5" deep, VersaTools® rack shelf kit (RSF 123)	60-190-20
1U, 3.5" deep, basic VersaTools rack shelf (RSB 123)	60-604-20
1U, 6" deep, universal rack shelf kit (RSU 126)	60-190-10
1U, 6" deep, basic rack shelf (RSB 126)	60-604-10
1U, 9.5" deep, universal rack shelf kit (RSU 129)	60-190-01
1U, 9.5" deep, basic rack shelf (RSB 129)	60-604-01
VersaTools mini under-desk mounting bracket kit (MBU 123)	70-212-01
VersaTools mini projector mounting kit (PMK 100)	70-367-01

Specifications, Part Numbers, and Accessories

Accessories	Part number
VersaTools multi-product projector mounting kit (PMK 300)	70-374-01
VersaTools multi-product projector mounting kit (PMK 350)	70-563-02, -03